

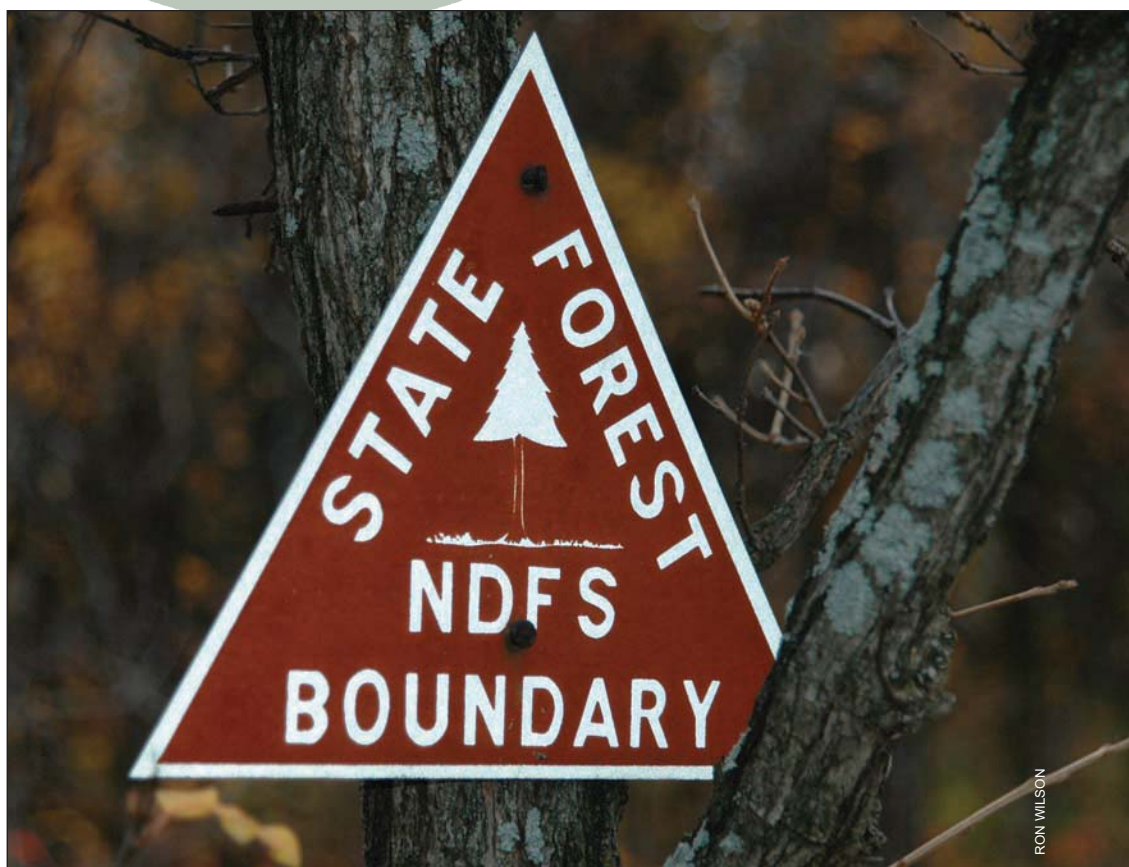


100 Years of Forestry in North Dakota

By Aimee Erdmann
and Glenda Fauske

It may come as some surprise that North Dakota, an agriculture state, has a forest service. Because of the state's size and land use, the 2.2 million acres of native and planted trees are not as obvious as in other states.

But that fact makes protecting this delicate ecosystem and wildlife habitat even more vital. The North Dakota Forest Service has been doing just that for 100 years, a milestone this state agency will celebrate throughout 2006.



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The Roots

The lack of trees for housing, fuel, fencing and protection from the elements made life difficult for early settlers, many of whom were forced to build homes from sod and heat them with buffalo chips. Homesteaders were easily motivated to remedy the situation, but help in obtaining and planting trees was not readily available.

When North Dakota became a state in 1889, its constitution authorized a State School of Forestry to “develop tree and shrub species for planting and suitable planting techniques,” making North Dakota the sixth state to establish a firm foundation in forestry. However, no money was appropriated to build the school.

The North Dakota Forest Service shares its roots and centennial with Minot State University-Bottineau. When the State School of Forestry was established in 1906, Bottineau was selected as the site because of its location near the Turtle Mountains, the largest tract of native forest in the state. Initially, area businessmen raised \$2,500 for a wooden two-story school. Later, state lawmakers appropriated \$25,000 to construct a greenhouse and brick building. And forestry – the science, art and practice of creating, managing, using and conserving trees to meet the needs of future generations – took root in North Dakota.

The 1913 Forestry Nursery Act appointed the president of the School of Forestry to also serve as the state forester. Duties and

responsibilities for each expanded, and in 1945 branched into separate entities on the same campus – School of Forestry and North Dakota Forest Service.

In 1968, the school and agency aligned with North Dakota State University because of their similarity to the land-grant institution’s mission of serving the state through forestry and agriculture instruction, research and public service. The School of Forestry was renamed NDSU-Bottineau Branch.

Over time, things changed and the school began focusing on attracting more students through technical vocations and teaching. In 1996, the North Dakota University System realigned the school with Minot State University and changed the name to MSU-Bottineau. The North Dakota Forest Service remained with the land-grant institution and the state forester continues to report to the NDSU president.



Seeds of Change

The thinly dispersed forests of North Dakota’s rolling prairie are not a dominant landscape feature. Only one in every 100 acres is naturally forested. With hundreds of years of prairie fires in the semi-arid climate, grasslands became established and trees had difficulty competing. The majority of woody vegetation is confined to moist riparian sites along lakes and streams.

Early homesteaders, accustomed to more wooded homelands, requested government support for planting trees. Help came in the Timber Culture Act of 1873, which provided for the planting of trees to a portion of

acres homesteaded. Nearly 8,000 North Dakotans gained title to 1.2 million acres of land under this provision, which ended in 1891.

When the drought of the 1930s struck, farming methods developed over the years could not prevent vicious winds from creating a dust bowl from North Dakota to Texas. A tremendous interest in tree planting was again ignited, but for a new reason – to prevent soil erosion. Following the drought, a major effort was made by a variety of state and federal organizations to plant trees and change farming practices to conserve soil resources.

The natural woodlands of North Dakota that once covered about 700,000 acres have decreased to 673,200 acres. In addition, there are 1.5 million acres classified as protective shelterbelts, windbreaks, woody draws and other wooded areas. The native forests are characterized by both eastern and western forest types. North Dakota forests are comprised of four major types: elm-ash-cottonwood, aspen, oak and ponderosa pine. Elm-ash-cottonwood, the most abundant eastern forest type, occurs in riparian areas along the Missouri, Red and Sheyenne rivers. Aspen, and the less extensive oak type, are concentrated in the Turtle Mountains, Pembina Hills and Devils Lake region. The state’s smallest forest type, ponderosa pine, is limited to the badlands of western North Dakota.

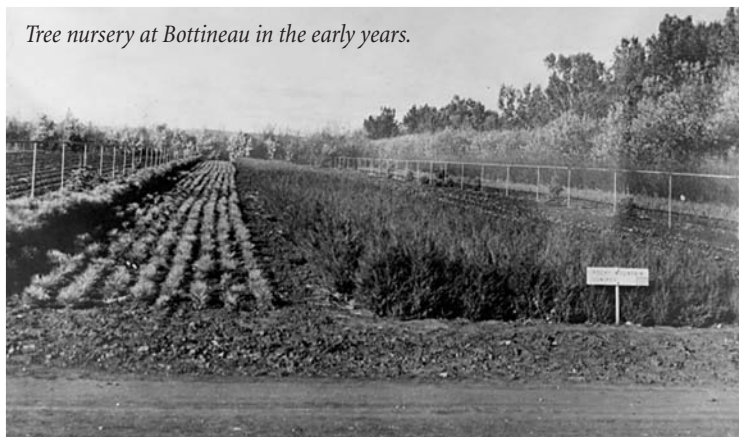


Branching Out

The North Dakota Forest Service continues in its original mission to “care for, protect, and improve forest resources to enhance the quality of life for future generations.” In line with that mission, the agency has spent considerable time and effort monitoring for insect damage and disease, including the forest tent caterpillar and invasive gypsy moth.

The agency has also been proactive in rejuvenating and managing aspen growth in the Turtle Mountains and Pembina Gorge. Part of the management plan involves

Tree nursery at Bottineau in the early years.



ND FOREST SERVICE



regulating the age range of trees in an area to create a stable forest habitat for wildlife.

The North Dakota Game and Fish Department has worked collaboratively with the Forest Service on public education about management practices, as well as assisting private landowners in developing plans to manage their own forested acreage.

"Sometimes removal of aspen stands causes public concern," said Randy Kreil, Game and Fish Department wildlife division chief. "We work to educate people about the value of maintaining a diverse age range to promote the best habitat for wildlife possible."

Tom Berg, North Dakota Forest Service staff forester, concurs. "We have held awareness workshops for private landowners who have been approached by logging companies to help them determine the best way to manage their acreage. We talk to them about having contracts and getting all information up front so they can make the best and most ecologically sound plans for their property," he said.

The relationship between the Forest Service and Game and Fish has been a long and productive one, according to Larry Kotchman, North Dakota State Forester. "We have collaborated on a variety of projects, and their Private Land Initiative and Private Forest Conservation programs have been critical to maintaining native forests," he said.

The Private Land Initiative provides financial incentives to landowners willing to establish and maintain wildlife habitats through tree and shrub plantings and aspen management. The Private Forest Conservation program works with landowners in purchasing 10- to 30-year easement agreements wherein the landowner receives compensation for maintaining native forests and allowing hunters access to the property.

In 1966, the North Dakota Forest Service began a land acquisition program to permanently protect a portion of North Dakota's limited native forests. With the help of the Federal Land and Water Conservation Fund, 13,278 acres of North Dakota's native forests were set aside primarily to develop recreation opportunities.

The state forests are covered, woody plant communities dotted with open grasslands, wetlands and small lakes. The varied plant communities provide excellent habitat for wildlife and numerous opportunities for

outdoor recreation. To enhance public use, the state Forest Service has developed three primitive campgrounds and four picnic sites, 36 miles of maintained trails, fishing access to three lakes and canoe access to three major rivers. In addition, state forests provide an opportunity to collect common berries; harvest firewood; observe native wildlife and plant communities, as well as observe active forest management.

Pelican-Sandy Lake Recreation Area is part of the 4,485-acre Homen State Forest in the Turtle Mountains.



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Here's a look at North Dakota's state forests:

Homen State Forest – Contains many small parcels in Bottineau County, totaling 4,485 acres. It is made up of dense forest, small lakes and wetlands and contains Hartly-Boundary Primitive Area, Pelican-Sandy Lake Recreation Area and public acres with access to Long Lake.

Mouse River State Forest – This forest consists of two parcels totaling 259 acres in McHenry County. It contains stunted aspen forests in the sand hills and riparian forest along the Mouse River, also known as the Souris River.

Sheyenne River State Forest – Made up of the Sheyenne River riparian forest in Ransom County, which includes 509 acres.

Tetrault Woods State Forest – Made up of 432 acres of Pembina River riparian forest near Walhalla.

Turtle Mountain State Forest – At 7,494 acres, this is the largest contiguous block of forested land. It extends from the foothills of the Turtle Mountains to the Canadian border. Within its boundaries are Strawberry Lake Recreation Area, Hahns Bay Recreation Area and Twisted Oaks, a day-use area.

The state forester administers six programs that employ a voluntary, educational, and incentives-based approach to address natural resource needs and customer demands. They are as follows:

Community Forestry – Settlers planted tree seeds they brought with, or transplanted young seedlings from riverbanks into their yards. Today, most North Dakota residents live in cities and towns. For them, natural resource management means conservation activities in city parks, tree-lined streets or other green spaces within the community.



The Community Forestry team provides leadership, technical and financial assistance to communities throughout the state to assist in creating and managing their forestry assets.

Fire Management – A century ago, prairie fires swept unchallenged across the Great Plains. Today, the North Dakota Forest Service administers a Fire Management program to ensure the protection of lives, property and natural resources. It does this by training, organizing and equipping North Dakota's 376 rural volunteer and 12 career fire departments.

A cooperative fire protection assistance program provides assistance in organizing, training, planning, purchasing and repairing equipment. A companion program, the Federal Excess Personal Property program, loans surplus federal equipment to departments for enhancing firefighting capabilities. Community protection is improved through

grants for wildfire hazard mitigation and landscape projects. Fire prevention is stressed through distribution of Smokey Bear materials.

Forest Resource Management – This program focuses on improving stewardship by assisting private landowners with managing, protecting and using their native and planted forest resources. The Forest Service and landowner develop a forest stewardship plan and the landowner receives financial assistance for forest improvement practices. Rural forestry services are delivered through an agreement with local soil conservation districts. The forestry staff also works directly with North Dakota State University and the NDSU Extension Service to deliver services on a statewide basis for forest health, insect and disease diagnosis, and management recommendations.

Information and Education – Information and education offers youth and adults the knowledge and skills needed to make wise decisions about conservation, use and management of North Dakota's forest resources.

The North Dakota Forest Service, in conjunction with the NDSU Extension forester, sponsors Project Learning Tree workshops for teachers and youth leaders working with students in grades K-12. The program also handles daily requests for forestry information and the publication of educational materials, as well as The Prairie Forester newsletter.

Sustainable Forestry – The foundations of forestry were established a century ago to help create diverse and healthy forest resources. Today, private, community and state forests are valuable resources that provide many benefits.

The agency has five state forests comprising 13,278 acres. These woodlands are important to the economic well-being of several rural communities as they attract hunters, hikers, campers, skiers, snowmobilers, tourists and other outdoor enthusiasts.

Sustainable forestry also involves monitoring, retention, conservation, utilization and health of forest land in the face of rapid natural and social changes, public desires and new technologies. It means fulfilling today's needs while planning for tomorrow.

On state forest lands in the Turtle Mountains in spring, displaying male ruffed grouse can be found sitting on logs and beating wings to attract females.



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Timeline

- 1873 – Timber Culture Act provides for homesteaders to plant trees.
- 1889 – State constitution authorizes a State School of Forestry.
- 1894 – Bottineau selected as the site for the North Dakota State School of Forestry.
- 1906 – North Dakota School of Forestry officially founded.
- 1913 – Forestry Nursery Act passes, establishing North Dakota's first State Forestry Nursery in Bottineau and named the president of the school, who was also the State Forester.
- 1915 – Nursery opens in Bottineau.
- 1931 – Denbigh Experimental Forest established.
- 1934 – President authorizes \$60 million for shelterbelt project.
- 1945 – Legislature separates budgets for forestry and instruction – North Dakota Forest Service becomes branch of school.
- 1951 – North Dakota Forest Service starts growing trees at Towner Nursery.
- 1968 – Board of Higher Education aligns the School of Forestry with North Dakota State University.
- 1977 – Bottineau Nursery closed due to poor water and soil conditions.
- 1989 – State celebrates its centennial by planting 100 million trees over a 10-year period.
- 1996 – NDSU-Bottineau (formerly School of Forestry) becomes MSU-Bottineau.
- 2006 – North Dakota Forest Service and MSU-Bottineau celebrate centennials.



Tree Production – Through trial and error, settlers planted seeds and transplanted seedlings as they sought suitable trees, shrubs and fruits that would grow on North Dakota farms. Today, the North Dakota Forest Service owns and operates the 160-acre Towner Nursery, which specializes in production of conifer (evergreen) stock. The self-supporting nursery produces approximately 1.2 million seedlings annually for distribution to landowners. The trees are used for farmsteads, living snow fences, field windbreaks, wildlife, forestry and other conservation plantings. Since 1927, more than 75 million seedlings have been produced and sold.

The nursery also provides tree improvement services, such as testing, evaluation, selection and development of improved nursery stock for forestry and conservation plantings. Tree planting training and information materials are also provided to help customers plant and properly care for trees.



Celebrating 100 Years

The North Dakota Forest Service, along with MSU-Bottineau, will host a centennial celebration July 14-16 on the MSU-Bottineau campus. The celebration will feature two traveling exhibits – a Smithsonian exhibit exclusive to North Dakota entitled “Inspirations from the Forest,” and “Shelterbelts,” a North Dakota Museum of Art exhibit featuring 40 photos of shelterbelts and trees. Artists will also be on hand demonstrating woodworking, painting and music skills.

A short historical booklet describing the roots of forestry in North Dakota will be available. In honor of its centennial, the North Dakota Forest Service is providing special free centennial seed packets.

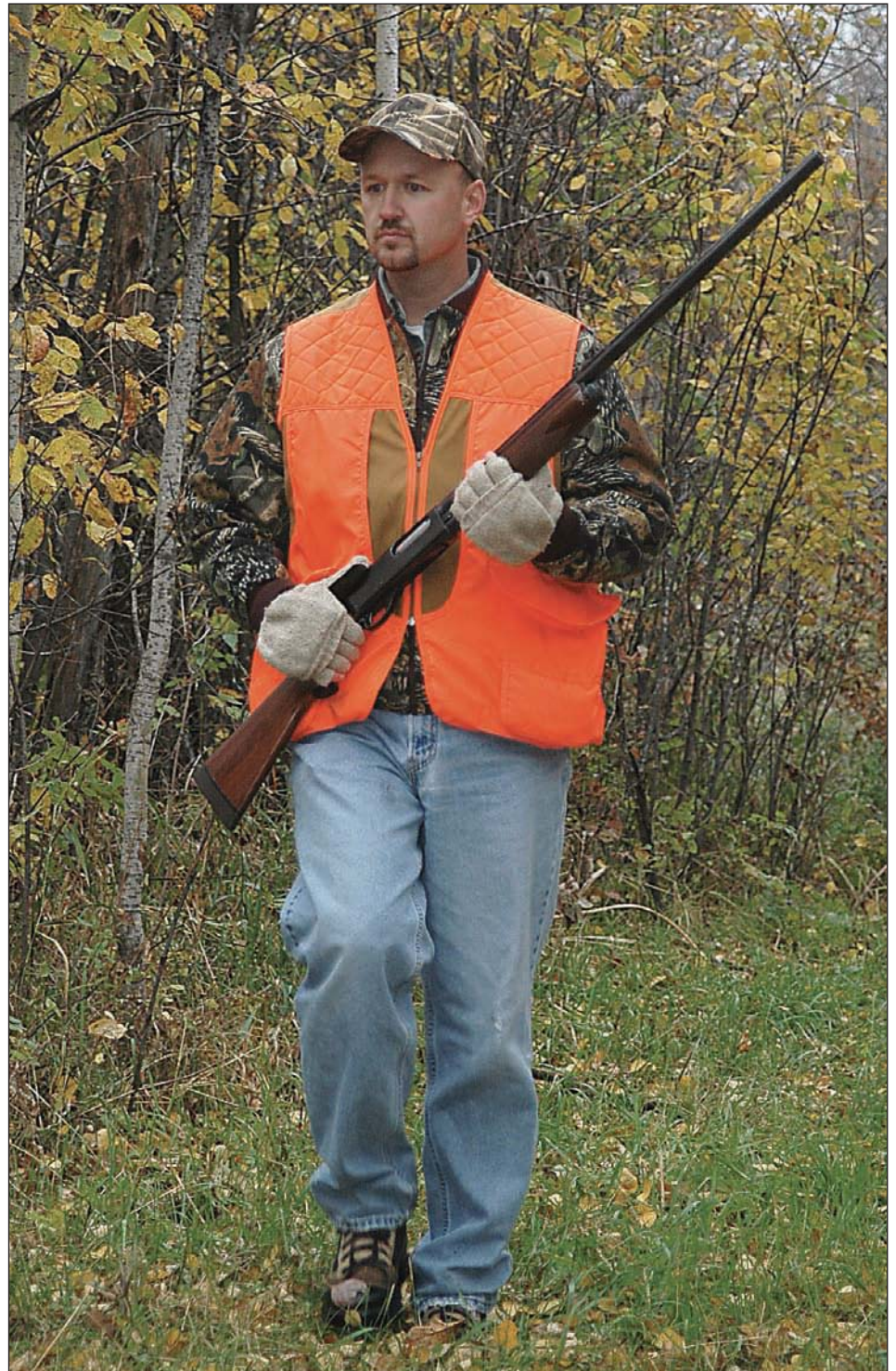
For more information about the North Dakota Forest Service centennial celebration

or to register, visit www.ndsu.nodak.edu/forestservicel/cent or www.misub.nodak.edu/centennial.htm or call Glenda Fauske, North Dakota Forest Service information and education coordinator, Bottineau, at 701-228-5446; e-mail is glenda.fauske@ndsu.edu.

AIMEE ERDMANN works for MSU-Bottineau.

GLEND A FAUSKE is the information and education coordinator for the North Dakota Forest Service.

A fall hunt for ruffed grouse on state forest land is a world away from chasing sharp-tailed grouse on the open prairie.



RON WILSON